

**REMARKS**

Reconsideration and allowance is kindly requested in consideration of the following remarks and amendments set forth in this response.

Claims 1-5 and 7-34 are currently pending in connection with the present application. Claims 1, 23 and 34 are independent claims.

Claim 8 is objected to because of informalities and by this amendment, claim 8 has been amended as per the Examiner's request.

**Description of an Example Embodiment.**

Fig. 1 illustrates an example embodiment of the present invention, where control information 14 and data packet 10 are transmitted over parallel channels dedicated to data and control information, respectively. The data packet 10 is divided into data subpackets 12-n (1, 2, 3 ...). While data is transmitted in parallel on the data channel, control information is transmitted redundantly on the control channel namely, the same control information is transmitted in each time slot of the control channel corresponding to the time slots of the data channel in which, each data subpacket 12-n is transmitted. By redundantly transmitting the control information during the time slots associated with each data packet, it is possible to begin decoding the transmission in the data packets prior to the end of the data subpacket transmission. Furthermore, since the entire communication system relies on proper transmission of the control information, the improved reliability of the redundant control information transmission results in a reduction of communication delays and permits quicker decoding of the data packets.

**PRIOR ART REJECTIONS**

**35 U.S.C. § 103(a) Ueno/Teder Rejection**

Claims 1, 5, and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ueno (U.S. Patent No. 6,671,269) in view of Teder (U.S. Patent No. 5,544,156 A). Applicant respectfully traverses this rejection.

The Examiner states on page 31 and 33 of the Action that “Ueno discloses transmitting a first control information repeatedly over a plurality of time slots of a control channel.” Claim 1 states: “transmitting **the** first control information associated with the first plurality of data sub-packets **repeatedly** over a plurality of time slots of a control channel.” The use of the word “**the**” indicates not just any first control information, but the **same** first control information is repeatedly transmitted in parallel to the data. Ueno teaches transmitting control blocks consisting of variable control data over a plurality of data packets in a data channel. However, Ueno neither teaches nor suggests repeating identical control information in this channel or any parallel channel.

Teder teaches using a separate control channel and a separate data channel for communications. However, Teder neither teaches nor suggests repeating the same control information on the separate control channel or the benefits thereof.

Accordingly, even assuming one skilled in the art combined Teder with Ueno, the resulting combination would not disclose or suggest “transmitting the first control information associated with the first plurality of data sub-packets repeatedly over a plurality of time slots of a control channel” as recited in claim 1.

Accordingly, at least for the reasons set forth above, Applicants submit that claim 1 is patentable.

Claim 23 includes similar limitations to those discussed above with respect to claim 1, and Applicants submit that claim 23 is patentable at least for the reasons stated above with respect to claim 1.

Furthermore, Applicants submit that claims 2-5, 7-22 and 24-33 are patentable at least because they depend on patentable, independent claims 1 or 23.

Applicants respectfully request that the Examiner withdraw this art grounds of rejection.

**35 U.S.C. § 103(a) Ueno/Admitted Prior Art Rejection**

Claims 1 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ueno (U.S. Patent No. 6,671,269) in view of Applicant Admitted Prior Art (APA). Applicant respectfully traverses this rejection.

As stated above, the Examiner states on page 31 and 33 of the Action that “Ueno discloses transmitting a first control information repeatedly over a plurality of time slots of a control channel.” Claim 1 states: “transmitting **the** first control information associated with the first plurality of data sub-packets **repeatedly** over a plurality of time slots of a control channel.” The use of the word “**the**” indicates not just any first control information, but the **same** first control information is repeatedly transmitted in parallel to the data. Ueno teaches transmitting control blocks consisting of variable control data over a plurality of data packets in a data channel. However, Ueno neither teaches nor suggests repeating identical control information in this channel or any parallel channel.

Applicant’s APA teaches using a separate control channel and a separate data channel for communications. However, Applicant’s APA neither teaches nor suggests repeating the same control information on the separate control channel or the benefits thereof.

Accordingly, even assuming one skilled in the art combined Applicant's APA with Ueno, the resulting combination would not disclose or suggest "transmitting the first control information associated with the first plurality of data sub-packets repeatedly over a plurality of time slots of a control channel" as recited in claim 1.

For at least for the reasons set forth above, Applicants submit that claim 1 is patentable.

Claim 23 includes similar limitations to those discussed above with respect to claim 1, and Applicants submit that claim 23 is patentable at least for the reasons stated above with respect to claim 1.

Furthermore, Applicants submit that claims 2-5, 7-22 and 24-33 are patentable at least because they depend on patentable, independent claims 1 or 23.

Applicants respectfully request that the Examiner withdraw this art grounds of rejection.

**35 U.S.C. § 103(a) Ueno/Haartsen Rejection**

Claims 1 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ueno (U.S. Patent No. 6,671,269) in view of Haartsen (U.S. Patent No. 5,732,353). Applicant respectfully traverses this rejection.

As previously stated, the Examiner states on page 31 and 33 of the Action that "Ueno discloses transmitting a first control information repeatedly over a plurality of time slots of a control channel." Claim 1 states: "transmitting **the** first control information associated with the first plurality of data sub-packets **repeatedly** over a plurality of time slots of a control channel." The use of the word "**the**" indicates not just any first control information, but the **same** first control information is repeatedly transmitted in parallel to the data. Ueno teaches transmitting control blocks consisting of variable control data over a plurality of data packets in a data

channel. However, Ueno neither teaches nor suggests repeating identical control information in this channel or any parallel channel.

Haartsen teaches using a separate control channel and a separate data channel for communications. However, Haartsen neither teaches nor suggests repeating the same control information on the separate control channel or the benefits thereof.

Accordingly, even assuming one skilled in the art combined Haartsen with Ueno, the resulting combination would not disclose or suggest “transmitting the first control information associated with the first plurality of data sub-packets repeatedly over a plurality of time slots of a control channel” as recited in claim 1.

For at least for the reasons set forth above, Applicants submit that claim 1 is patentable.

Claim 23 includes similar limitations to those discussed above with respect to claim 1, and Applicants submit that claim 23 is patentable at least for the reasons stated above with respect to claim 1.

Furthermore, Applicants submit that claims 2-5, 7-22 and 24-33 are patentable at least because they depend on patentable, independent claims 1 or 23.

Applicants respectfully request that the Examiner withdraw this art grounds of rejection.

**35 U.S.C. § 103(a) Ueno/Teder/Proctor’135 Rejection**

The Examiner rejects claim 2 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Proctor, JR (U.S. 2002/0013135A1). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Proctor’135 could be combined with Ueno (which Applicants do not admit), Proctor’135 suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above.

Therefore, the combination of Ueno, Teder, and Proctor'135 still fails to teach all features of claim 2. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Ishikawa**

The Examiner rejects claims 3 and 24 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Ishikawa (U.S. 6,084,911). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Ishikawa could be combined with Ueno (which Applicants do not admit), Ishikawa suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Ishikawa still fails to teach all features of claims 3 and 24. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Lewis**

The Examiner rejects claims 4 and 16 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Lewis (U.S. 6,601,209). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Lewis could be combined with Ueno (which Applicants do not admit), Lewis suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Lewis still fails to teach all features of claims 4 and 16. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Carlsson**

The Examiner rejects claim 7 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Carlsson (U.S. 6,603,978). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Carlsson could be combined with Ueno (which Applicants do not admit), Carlsson suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Carlsson still fails to teach all features of claim 7. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Scholefield**

The Examiner rejects claims 8, 9, 11, and 12 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Scholefield'592 (U.S. 5,742,592). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Scholefield'592 could be combined with Ueno (which Applicants do not admit), Scholefield'592 suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Scholefield'592 still fails to teach all features of claims 8, 9, 11, and 12. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Scholefield/Proctor**

The Examiner rejects claim 10 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder and Scholefield'592, as applied to claim 8 above and further in view of Proctor'135. This rejection is respectfully traversed in that even assuming

*arguendo* Teder, Scholefield'592, and Proctor'135 could be combined with Ueno (which Applicants do not admit), Scholefield'592 and Proctor'135 suffer from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, Scholefield'592, and Proctor'135 still fails to teach all features of claim 10. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Nakano**

The Examiner rejects claim 13 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Nakano (U.S. 5,206,858). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Nakano could be combined with Ueno (which Applicants do not admit), Nakano suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Nakano still fails to teach all features of claim 13. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Bergenwall**

The Examiner rejects claim 14, 15, 17, and 30 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Bergenwall (U.S. 2002/0126710). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Bergenwall could be combined with Ueno (which Applicants do not admit), Bergenwall suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Bergenwall



still fails to teach all features of claims 14, 15, 17, and 30. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Kawamura**

The Examiner rejects claim 18 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Kawamura (U.S. 6693879B1). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Kawamura could be combined with Ueno (which Applicants do not admit), Kawamura suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Kawamura still fails to teach all features of claim 18. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Nakano/Kawamura**

The Examiner rejects claim 19 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder and Nakano'858, and further in view of Kawamura. This rejection is respectfully traversed in that even assuming *arguendo* Teder, Nakano'858, and Kawamura could be combined with Ueno (which Applicants do not admit), Nakano'858 and Kawamura suffer from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, Nakano'858, and Kawamura still fails to teach all features of claim 19. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Moulsley**

The Examiner rejects claims 21, 22, 31, 32, and 33 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, and further in view of Moulsley (U.S. 2004/0082357). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Moulsley could be combined with Ueno (which Applicants do not admit), Moulsley suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Moulsley still fails to teach all features of claims 21, 22, 31, 32, and 33. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Scholefield as Applied to Claim 23**

The Examiner rejects claims 25 and 26 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, as applied to claim 23 above, and further in view of Scholefield'592 (U.S. 5,742,592). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Scholefield'592 could be combined with Ueno (which Applicants do not admit), Scholefield'592 suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Scholefield'592 still fails to teach all features of claims 25 and 26. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Nakano as Applied to Claim 23**

The Examiner rejects claim 27 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, as applied to claim 23 above, and further in view of Nakano

(U.S. 5,206,858). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Nakano could be combined with Ueno (which Applicants do not admit), Nakano suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Nakano still fails to teach all features of claim 27. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Scholefield/Bergenwall**

The Examiner rejects claim 28 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, as applied to claim 23 above, and further in view of Scholefield'592 and Bergenwall. This rejection is respectfully traversed in that even assuming *arguendo* Teder, Scholefield'592, and Bergenwall could be combined with Ueno (which Applicants do not admit), Scholefield'592 and Bergenwall suffer from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, Scholefield'592, and Bergenwall still fails to teach all features of claim 28. For at least these reasons, the rejection should be withdrawn.

**35 U.S.C. § 103(a) Ueno/Teder/Lewis as Applied to Claim 23**

The Examiner rejects claim 29 under 35 U.S.C. §103(a) as being unpatentable over Ueno in view of Teder, as applied to claim 23, and further in view of Lewis (U.S. 6,601,209). This rejection is respectfully traversed in that even assuming *arguendo* Teder and Lewis could be combined with Ueno (which Applicants do not admit), Lewis

suffers from the same deficiencies as Ueno and Teder with respect to claims 1 and 23 discussed above. Therefore, the combination of Ueno, Teder, and Lewis still fails to teach all features of claims 29. For at least these reasons, the rejection should be withdrawn.

**Allowable Subject Matter**

Applicants note with appreciation that claim 34 is allowed. Applicants also note with appreciation that claim 20 is dependent on a rejected base claim, but would be allowable if rewritten in independent form.

**CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a one (1) month extension of time for filing a reply to the outstanding Office Action and submit the required \$120.00 extension fee herewith.

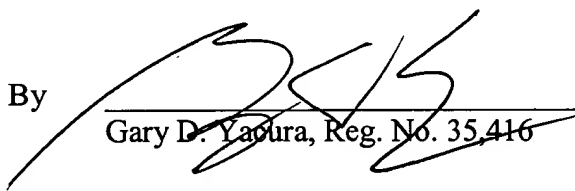
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

  
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